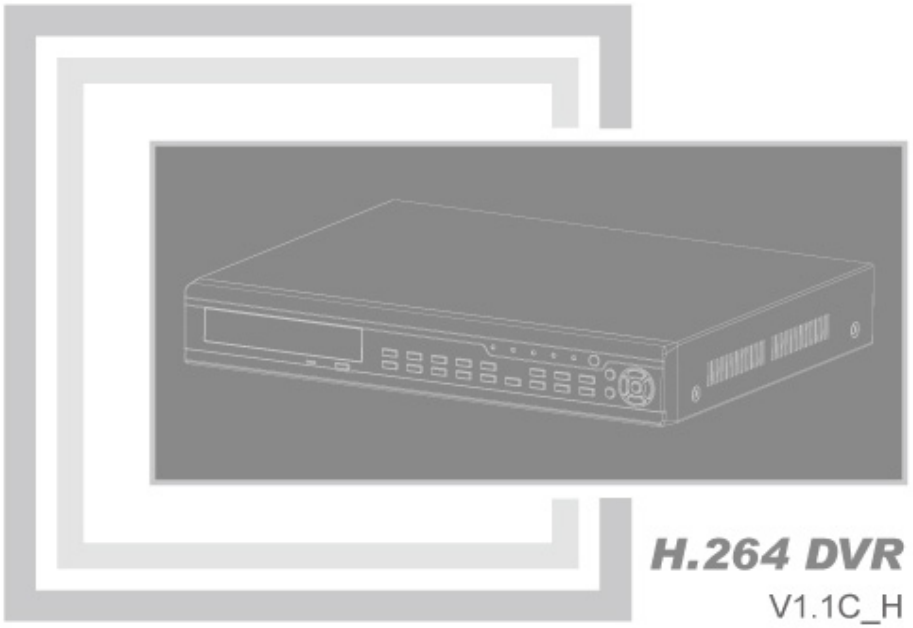

H.264 DVR

V1.1C_H

16-CH Embedded Digital Video Recorder

USER MANUAL

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Notes

◎The power supply of this DVR is provided through DC12V adapter, please check the power outlet before installation and ensure it can meet the requirements of adaptor;

◎Do not place the DVR at a place subject to rain or moisture;

◎Do not install the DVR at a place subject to violent vibration;

◎Do not install the DVR at a place subject to direct sunlight, and be far away from heat and high temperature environment;

◎The DVR's back panel shall be 15cm or more away from other objects or wall, to facilitate fan cooling;

◎The DVR shall work under temperature, humidity and voltage according to its technical specifications;

◎The space where DVR installed shall not be stored with corrosive chemicals that may produce volatile gases, to avoid to affect the DVR's life;

◎The DVR shall be installed in a space without much dust, and the environment should be kept clean and tidy;

◎Proper grounding shall be installed during operation;

◎DVR should be installed to ensure the proper connectivity with other devices.

Following parts are included in the package:

◎ One IR remote controller
◎ A pair of remote controller batteries
◎ One piece of product certificate
◎ One piece of product warranty card
◎ One piece of product instruction
◎ Several SATA hard disk data cables
◎ One DC12V/5A power adapter
◎ HDD support (already installed) and a set of mounting screws.
◎ One piece of CD

Chapter 1 DVR Instruction

Real-time Monitoring	Analog output, realize monitor functions through monitor.
Record Storage	Support HDD to save real-time record.
Record Backup	Support USB flash drive, removable drive, network backup to HDD.
Playback	Enable multiple CH playback via DVR host or Network.
Network Operation	Support remote access by authorized users to increase expansibility and security of system.
Alarm	Support HDD & Video input alarm Management and external alarm signal inputs. Support motion detect
Mouse Operation	Support Mouse operation for flexible system setup.
PTZ Control	Support PTZ camera operations via RS-485.

Table 1-1

Technical Specifications

◎H.264 compression format, but currently16 CH only supports CIF resolution real-time.

◎Linux operation system, graphical interface, supports mouse, front panel and IR remote control operation;

◎Support IE browse, real-time network monitor and DVR parameter setting, audio network transmission;

◎Support 4 CH audio recording inputs, audio channel bonding, recording, playback, network transmission and real-time record.

◎Multiple recording modes: manual recording, timing recording, alarm recording(motion or sensor input), timing & alarm recording(low frame rate recording before alarm, if in motion or sensor input alarm, frame rate is increased) .

◎Supports playback of event categories and accurate time; RS-485 port to support PTZ control;

◎Support video signal loss alarm; automatic password protection for the sake of illegal operation;

◎Support USB flash drive and HDD backup;

◎Support 2 SATA HDD, capacity of single one is to 2T;

◎Support auto recovery when power off or reset

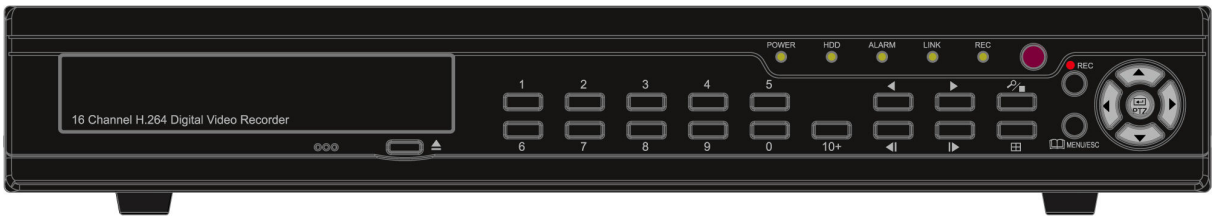
1.1 Specifications

Video compression format	H.264
Operating system	Embedded LINUX
VGA output	1280x1024@60Hz
HDMI output	1920x1080@60Hz
Video input/output	NTSC/PAL : 16-ch BNC input 2-ch BNC output
Audio input/output	16-ch input/1-ch output
Voice intercom	Support
Image Quality	Lowest, Low, Normal, High, Highest
Record resolution	PAL:D1(704*576), NTSC:D1（704*480） PAL:CIF(352*288) NTSC:CIF(352*240)
Recording mode	Timing/manual/motion detection/alarm
Recording frame rate	PAL：25fps NTSC：30fps, adjustable
Video split	1/4/9/16-ch
Multiplex operation	Live display, recording, network, backup transmission, mobile phone surveillance simultaneously
Recording backup	Support USB flash disk, DVD writer backup, mobile hard disk backup , network backup
Playback	Support 16-ch play back at the same time via DVR host or network by IE and PC client software.
Network transmission	16-ch real-time network transmission, support sub-stream
Photo capture	Support
Alarm-action Recording	Support
Email alarm	Send pictures to the designated Email
PTZ	Support
Network and protocol	1 RJ-45 10/100M via Ethernet , support TCP/IP、DHCP、DNS、DDNS, UPNP,NTP etc.
IE browser	Support
PC Client	Support
Dual stream	Support（main and secondary interchange）

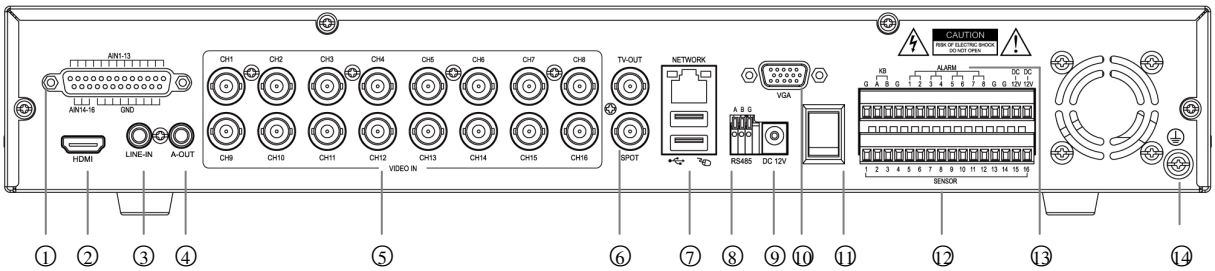
Multi-language	Support
Mobile phone surveillance	Support Windows, Symbian, IPhone, Android, blackberry
Mouse interface	USB1.1
Backup interface	USB2.0
Remote controller	Support
User authority	Support multi-level user authority distribution
DST	Support
Power	DC12V/5A
Working temperature	0℃-50℃
Working humidity	10%－90%

Chapter 2 DVR Introduction

2.1 Front panel (only for reference)



2.2 back panel



①	Audio input	⑧	RS485 for PTZ
②	HDMI	⑨	Power DC12V/5A
③	Intercom audio input	⑩	VGA
④	Audio output	⑪	Power switch
⑤	Video input	⑫	Sensor input
⑥	Video output	⑬	Alarm output
⑦	USB / RJ45 Ethernet	⑭	GND

2.3 Remote controller (only for reference)

⏻	System off
🔇	Mute
1-9	Channel selection: 1-9
0	Combination of 0 and 10 switch to channel 10
10+	Combination of 0-6 and 10+ switch to 10-16 respectively
⊞	Display switch
▲	For the focus transfer of plug-ins in the menu's interface; move up
▼	For the focus transfer of plug-ins in the menu's interface; move down
PTZ	Enter PTZ interface/Enter
◀	For the focus transfer of plug-ins in the menu's interface; move leftwards
▶	For the focus transfer of plug-ins in the menu's interface; move rightwards
SYSINFO	View basic information of system
MENU/ESC	Pop up right click menu
●	Manual record
■	Stop
▶	Fast forward
◀	Fast reverse
▶|	One frame fast forward
|◀	One frame back forward
LOG	Enter log search interface
F1	Spare key
SPOT	Spot output

Chapter 3 Installation

3.1 HDD Installation

Notice	Don't take out the HDD while the DVR is working

HDD Install：

(1) Open the hard disk back cover of the DVR

(2) Fixed hard drives to holder

(2) Connecting HDD wire and power wire to the hard disk interface.

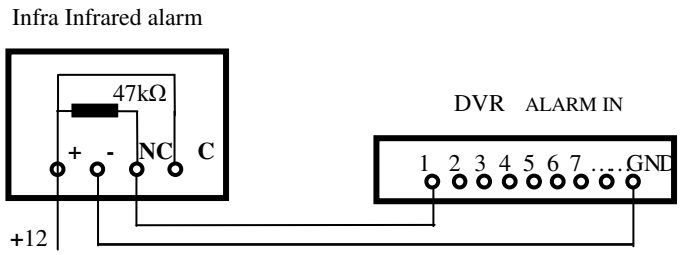
(3) Put the back cover back.

3.2 Connecting Cameras ,Monitor and Audio

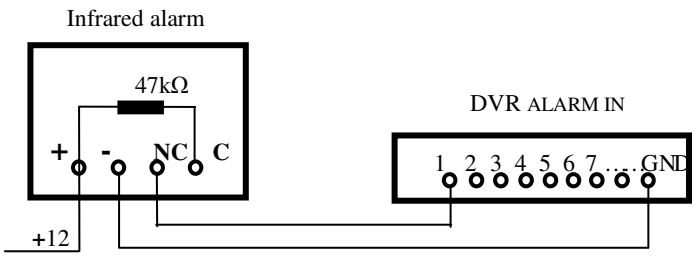
Connect camera cable to video input of DVR, and connect the video output cable from DVR to monitor via BNC connector. If the camera is PTZ dome, connect RS485 A & B to the port of DVR respectively.

3.3 Alarm input and output

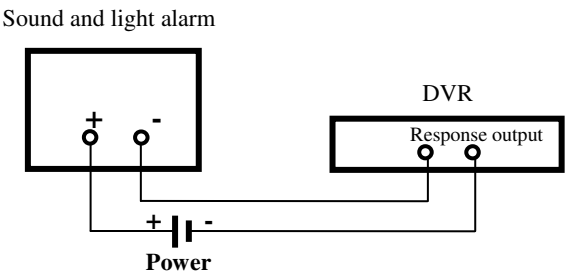
Alarm input close connection:



Alarm input open connection:



Alarm output open connection:



Note: All of the input and output signals are switch

3.4 Connecting power

Please use the supplied power adapter to connect DVR.

Chapter 4 Basic Operations

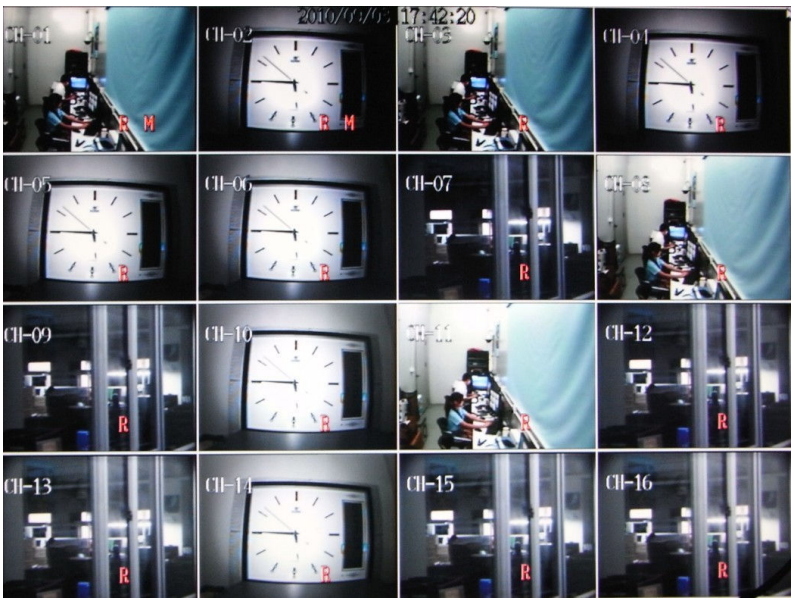
4.1 System Initialization

After connecting the power adapter and pressing the power button, the system will be turned on.

Note: You must enter the main menu and select HDD Management to format the hard disk.

4.2 Main interface

After turning on the system will enter main interface. Picture 4-1 is the main interface defaulted by system. Once there are video inputs, the interface will display live images from the channel; if not video input, the interface is blue. In the main interface, double-click any channel, the image will be maximized to full screen, by double-click again, image will come back to multiple display mode; clicking the right button of mouse then will enter Pop-up Menu, move the cursor to select menu, then click the left button to enter the selected menu or carry out the functions.

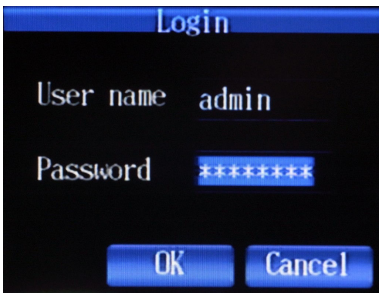


Picture 4-1

4.3 Right-click Menu

After start-up of the system, click right button of mouse in the main interface, through pop-up main menu, user could perform parameter setting and operate on the main menu, e.g., main menu, video search, PTZ control, manual record, switch of single channel and multi-channel, shown as picture 4-2.

Picture 4-2



Picture 4-3

4.4 User Login

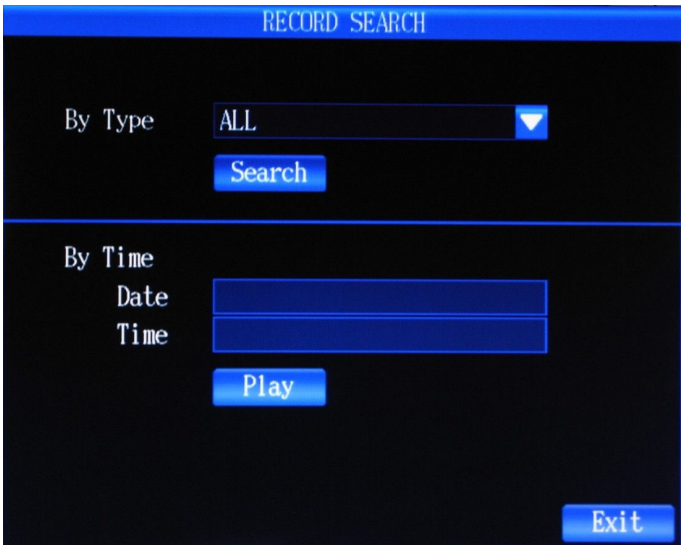
Click the Menu Key to pop up the information of the User Login, as shown in Image4-3, the default **user name: admin; Password: 00000000**

If any users to be added or passwords to be modified, please refer to the 'User Management' in Chapter 4.7.5

4.5 Record file Playback and Backup

4.5.1 Playback

Pls click '**Record Search**' in the quick menu (reference to 4.3) to enter the following interface



Picture 4-4

Two way to Playback:

1) Search by time, enter the date time, then click 'play' button to play the record file of this time. If no record file in this period, there will pup-up a system note 'File open error'

2) Search By type, enter the record types in the 'By Type' Column, there are five options of the

types: ALL/Manual/Schedule/Alarm/Schedule&Event, then click 'search' button to display the file list as shown as the following image

Picture 4-5

Select one of the files in the list, pop up the following note:

Picture 4-6

Click Playback to enter the playback as shown in the following image:

Picture 4-7

This DVR supports the 16 channel playback simultaneously, or you can also double-click one channel to operate the single-channel play. Among the function icons of the PLAY Control Bar under the PLAY window, there are **fast backward, step backward, Stop, step forward, fast forward,**16-ch split,9-ch split, 4-ch split, single display, mute. the PLAY Bar will hide automatically.

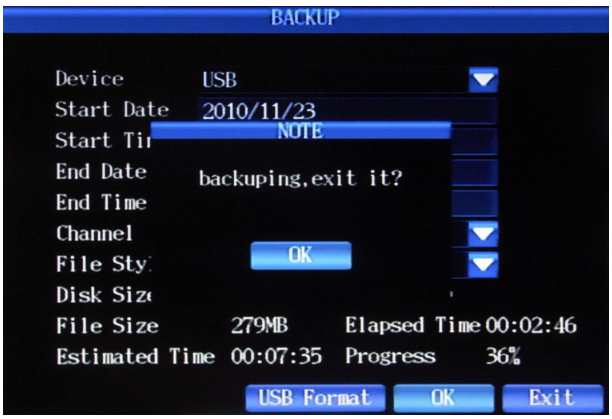
4.5.2 Backup

Enter the Record file list interface as shown in Image 4-5

File Backup by single file and multiple file: Tick √ in the small column on the right side of the interface, then click the 'Files Backup' at the bottom of the interface. If the 'File Backup' is selected, please click one of the files in the list as shown in image4-6, then click 'File Backup' to enter the interface as shown in image 4-8

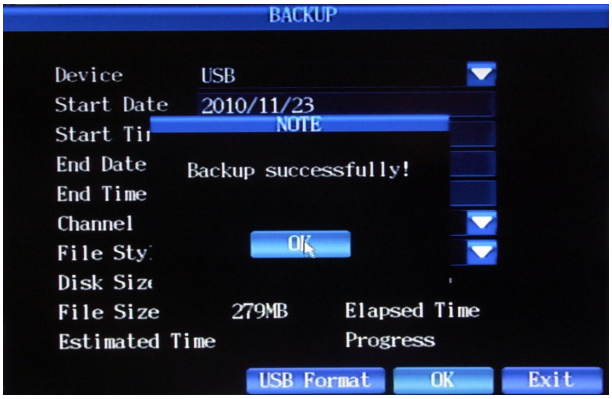
Picture 4-8

Backing up：



Picture 4-9

Backup successfully：



Picture 4-10

Setting Method:

(1) Set the backup device, channel and some other functions in the recording backup interface

Backup device: support USB and DVD Recorder.

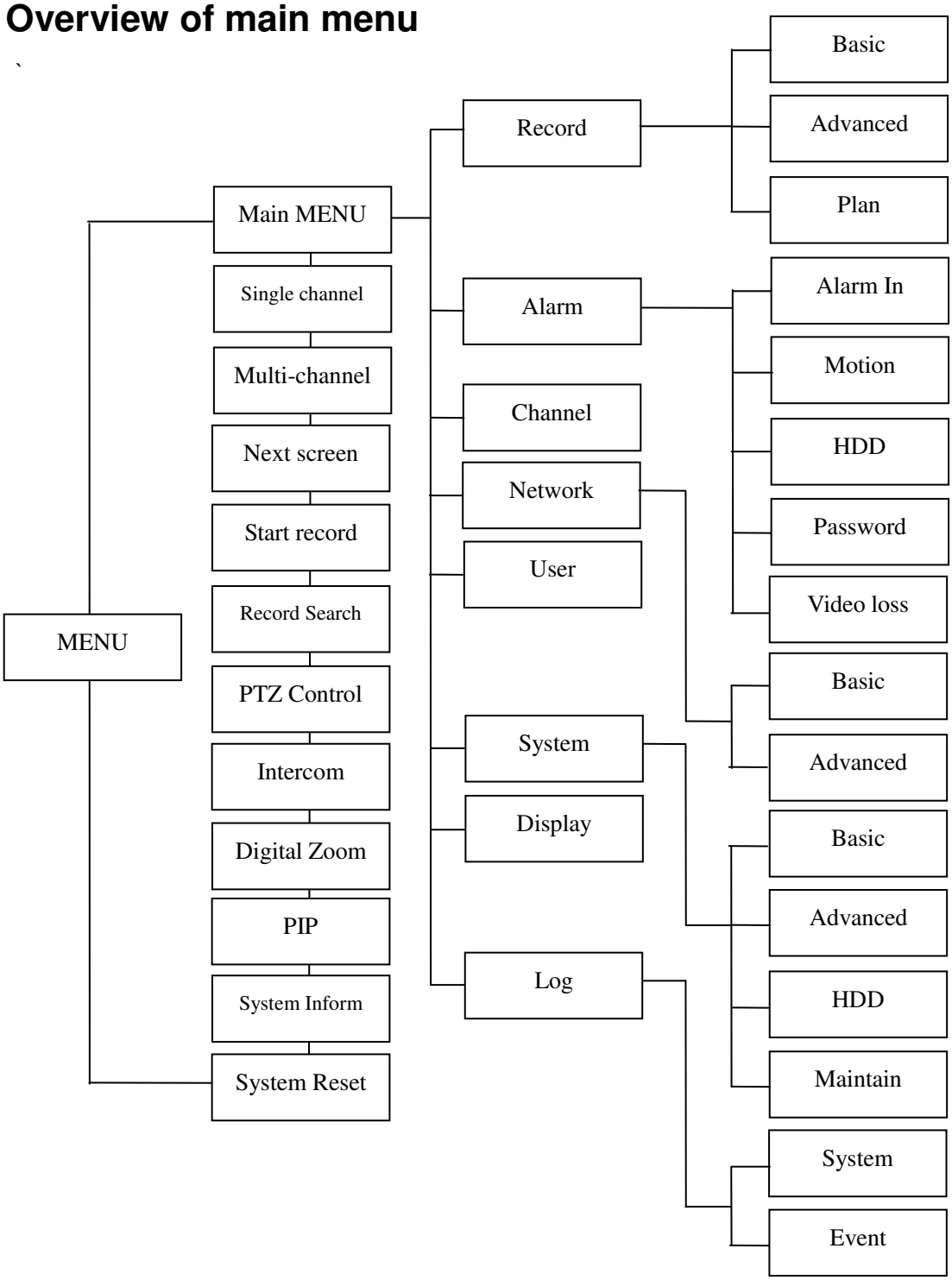
start date and time of the file: setup of start date and time of the backup file

End date and time of the file: setup of end date and time of the backup file

(2) The capacity of external device and remaining capacity could be automatically detected and displayed at the bottom of the window. Meanwhile, the file size and back-up time could be evaluated automatically. The usage time and backup speed could also been on display.

Notice	1. The evaluated remaining time (estimated time) may be a bit different from the actual time. 2. To identify USB hard disk or USB flash disk, the back-up device should be formatted by FAT32 . 3. The total file size must less than the device' capacity.

4.6 Overview of main menu



4.7 Main Menu

In the main interface, right-click to pop up the menu, click "main menu" (shown as picture 4-3), where could set the following items: Record, Alarm, Channel, Network, User Management , System, Record Backup and Log Search setting.

Picture 4-11

4.7.1 Record

1）Basic setting

Click [Main menu]→ [Record] to enter [record] menu（Shown as picture4-12）

There are options of Resolution, Image Quality, Frame Rate, Audio, Pre- record available in the interface.

Resolution: CIF/HD1/D1, just now the resolution of 16 CH only supports CIF real-time.

QUALITY: lowest, low, normal, high, highest, the comparative result shown as the following table:

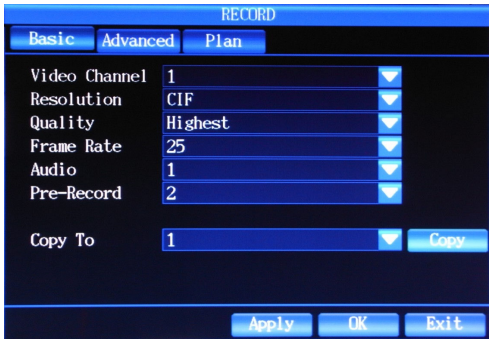
Image Quality	Resolution	Maximum rate	Capacity to HDD per hour
lowest	CIF	64K	900M
Low	CIF	256K	1.76G
Normal	CIF	512K	3.51G
High	CIF	768K	7.03G
Highest	CIF	1024K	10.55G

Frame rate:if less than 25 fps, image is not real-time, but could save minor stream and decrease data size. There are four standards, PAL: 6/12/25 frame and NTSC: 6/15/30 frame.

Audio: Recording is the audio channel relative to video record. If without input audio source, it doesn't need to set up this item. Through left-click or front panel button to enter the interface of record, pop-up the menu, select the audio channel with the options of 1-16 audio channels.

Pre-record: when one channel in timing alarm, the number of fps between the beginning of the channel is triggered by alarm and end of event alarm, two options: 5 frame, 6 frame.

Copy to channel: after the setting of parameter of one channel, parameters of other channels are accordance with the first one channel, and then could use this item to copy the parameters of first one channel to other channels.



Picture 4-12

2）Advanced setting

To get to the ADVANCED SETUP, left click to the interface or via DISPLAY of front panel to other tags.

There are two options: Override & Time and Date override

Setting method:

Note: Please note that PTZ also functioned as Enter.

（1） **Overwrite:** If select YES, this will make the new record file will overwrite the former record file when the capacity of HDD is full. If select NO, the new record file won't be stored in HDD when the capacity of HDD is full.

（2） **Time and Date Overwrite:** If select YES, this will display time and date in the video playback, if select NO, the time and date won't be displayed in the video playback.

Picture 4-13

3）Record Plan

"Record Plan" includes setup of Off, Schedule Record, Alarm Record, and Schedule & Alarm Record.

Record Plan has seven days: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday. There are 24 time periods and one hour per time period.

Setting method:

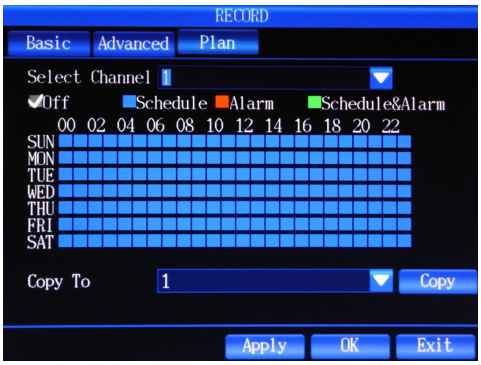
（1） Press the arrow key to "Channel" to popup the interface.

（2） Move cursor to any options: such as Off, Schedule Record, Alarm Record, and Schedule & Alarm Record, tick "√".

（3） Move cursor to any time options; select time area.

（4） If apply all settings to other channels, just move cursor to "Copy to" to copy the settings to one channel or all channels.

（5） Move cursor to "Enter" to save above settings.



Picture 4-14

4.7.2 Alarm Setup

1）Alarm In

Alarm Channel: chose the alarm channel.

Sensor Type:depending on the Sensor you can select ‘Normal Open’ or ‘Normal Close’.

Record: setup the record channel if the alarm was activated.

Alarm Out: select the alarm output channel on the bottom panel.

Buzzer: control the Buzzer working time .

Action PTZ: when the sensor responses alarm the DVR can quickly control the PTZ camera moving to the preset position. You must set up the preset position in PTZ cannel before work well.

Disp-Video: setup the video pup-up channel displaying on the main screen if the alarm happen.

Event Duration: setup the alarm continues time.

Picture 4-15

2）Motion Detection

In motion detection, except the setup of sensitivity and MD area, settings of other functions as same as alarm input, users could follow the former sections. Next mainly introduce the setting of sensitivity and MD area.

Sensitivity refers to corresponding sensitivity in motion detection when the event record mode is motion detection or alarm record.

Setting method (*following introduce use Remote control for demonstrating*)

(1) Press the arrow key to select [Sensitivity], popup dropdown menu with PTZ, and then press the arrow key to choose “Sensitivity”.

(2) Enter PTZ to apply the selected sensitivity.

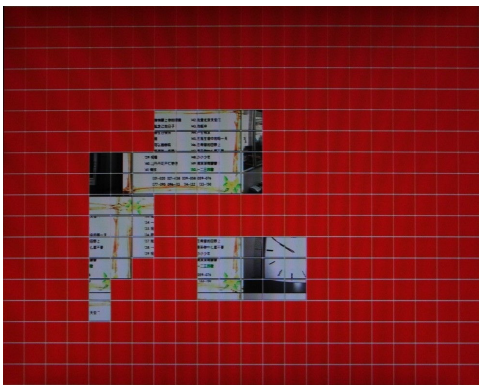
Picture 4-16

MD Area Setup

MD Area refers to corresponding MD area in motion detection when the event record mode is motion detection or alarm record.

(1) Press the arrow key to select [MD Area], popup dropdown menu with PTZ, and then press the arrow to choose some part, and enter the interface with the click of PTZ. (Shown as picture 4-17)

(2) Press the arrow key to select the starting point of motion detection and PTZ to apply the choice, and move the cursor to choose desired motion area, then enter "ESC" to exit the interface, at last, press "Enter" to save above settings.



Picture 4-17

3）HDD Error

Click DISPLAY to "HDD ", shown as picture 4-18.

HDD mistake is that when there is mistake of HDD, DVR will alarm to remind the user.

Setting method:

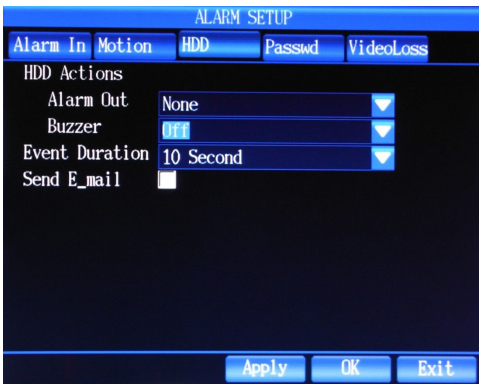
（1） Press the arrow key to select [Alarm Output], enter PTZ to choose action port, and press "Enter" to exit.

（2） Buzzer setup: To check DVR whether enable beep when set event trigger. Select "Buzzer",

press PTZ to open dropdown menu and arrow key to choose ON/OFF. If select ON, the buzzer is activated; if select OFF, the buzzer is invalid. When the event is finished, the buzzer is off automatically.

（3） Event duration means the duration of alarm when the start of event setup. Press the arrow key to select [Event Duration], popup dropdown menu with PTZ, and then press the arrow to choose working time. The system default is 10 seconds. Finally, press ON/OFF to apply selected time with PTZ.

（4） Setting the above parameters, press the arrow key to Enter and PTZ to save the parameters.

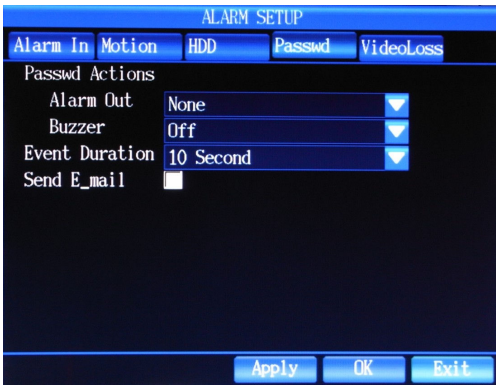


Picture 4-18

4）Password Error

Click DISPLAY to "Password", shown as picture 4-19.

Password Error means that the current user or other users input wrong password, DVR will alarm to remind the user.



Picture 4-19

5）Video Loss

Click DISPLAY to "Video Loss", shown as picture 4-20.

Video Loss: When there is video loss of one channel, DVR will alarm to remind the user.

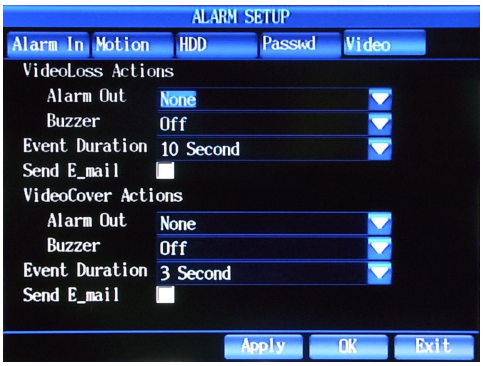
(1) Press the arrow key to select [Alarm Output], enter PTZ to choose action port, and press "Enter" to exit.

(2) Buzzer setup: To check DVR whether enable beep when set event trigger. Select "Buzzer", press PTZ to open dropdown menu and arrow key to choose ON/OFF. If select ON, the buzzer is activated; if select OFF, the buzzer is invalid. When the event is

finished, the buzzer is off automatically.

(3) Event duration means the duration of alarm when the start of event setup. Press the arrow key to select [Event Duration], popup dropdown menu with PTZ, and then press the arrow to choose working time. There are following options: （3/5/10/20/30/60/120/180/300/600/900/1200 S）, while the system default is 10 seconds. Finally, press ON/OFF to apply selected time with PTZ.

(4) Setting the above parameters, press the arrow key to Enter and PTZ to save the parameters.



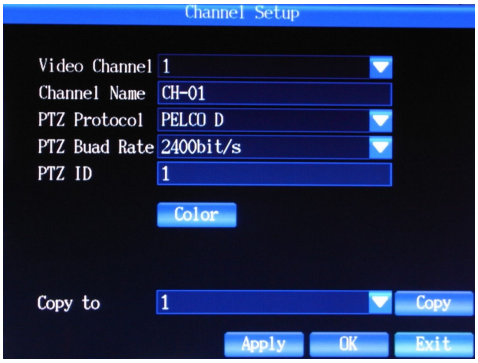
Picture 4-20

4.7.3 Channel Setup

Click "Main Menu" → "Channel Setup" , the interface is shown as picture 4-21.There are following options: Channel number, Channel name, PTZ protocol, Baud rate, PTZ address code and color setup.

1. Channel number: Press the arrow key to select "Channel number", and press PTZ to apply the selected channel.
2. Channel name: Press the arrow key to select "Channel name" and PTZ to popup the edit menu(Chinese, English, Numeric, Special character can be input as channel name), if input numeric or lower case, just use the arrow key to select directly; if input capital letters, user should press "Caps" of edit menu to switch to capital input; if input special character, press the ",." of edit menu to switch to special character input; if input Chinese, press "En" of edit menu to switch to Chinese input. 16 characters are supported.
3. PTZ Protocol: This protocol is used to realize the communication with PTZ. In order to control PTZ cameras, PTZ should be connected with PTZ port of DVR. Press the arrow key to select "PTZ Protocol"and PTZ to popup the dropdown menu, with the click of arrow key to choose appropriate protocol and enter PTZ to apply the selected protocol. There are a number of protocols could be used: PTZ-NULL, LG LPT-A100L, DRX-502A(Demo), PELCO D, NK-97CHE, SAMSUNG SCC-641, PELCO P, SJ2819RX, SAMSUNG MRX-1000, Techwin SPD1600/2500, Wonwoo Eng: SBO-201P1, Panasonic WV-CS850.
4. Baud Rate: Press the arrow key to select [Baud Rate], popup dropdown menu, and then press the arrow key to choose appropriate baud rate, at last, enter PTZ to apply the selected baud rate.

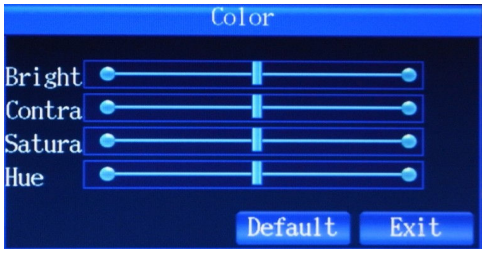
5. PTZ ID: Press the arrow key to select [PTZ ID], popup dropdown menu with click of PTZ, and then press the arrow key to choose the number, finally enter PTZ to apply the selected number. PTZ IP ranges from 0-255.



Picture 4-21

6. Color Setup: Through the setup of color, bright contrast, saturation, hue to set the display of channel.

Press the arrow key to select [Color setup] and PTZ to enter the interface. With the click of arrow key to chose bright, contrast, saturation, hue respectively and use the right and left keys to adjust number. After the adjustment, press ESC to exit the interface, in the end, press the arrow key to select "enter" and save the settings with the click of PTZ. (shown as picture 4-22)



Picture 4-22

4.7.4 Network setup

Enter [main menu]→ [network setup], the interface shown as picture4-23.

1) Basic setup: Connection Mode, IP address, Net mask, Gateway, NTP Server, HTTP Port, Media Port,

（1） Connection Mode: Dynamic IP and Static IP

Static IP refers to the IP address, Net mask and Gateway assigned manually, this requires that we're going to apply for an IP address from network administrator. Dynamic IP refers to IP address assigned by the Dynamic Host via DHCP, you don't need to set IP, Gateway or Netmask manually.

Setting method: Press the arrow key to select [Connection mode], popup dropdown menu of PTZ, and then press the arrow key to choose the connection mode with PTZ key.

（2） IP/ GATEWAY /NETMASK Setup

Only when the Static IP is selected as network connection mode, then IP/GATEWAY/NETMASK could be activated.

Setting method: Move down to IP, and press the PTZ to popup the edit menu, enter the desired IP. Setup of Netmask and Gateway is same way.

（3） NTP Server address setup: to realize DVR's time synchronization.
Setting method: Press arrow key to select "NTP Server" → enter PTZ→ select NTP Server→ enter the address in the interface, finally, click "Enter".

（4） Port Number Setup: HTTP Port, Media Port and Intercom Port.
Setting method: Press the arrow key, enter "HTTP Port", and press the PTZ to popup the edit menu, input port number (between 1024-65535) , finally, click "Enter". Setup of Media Port and Intercom Port is the same way.

Note: When forwarding the ports in the WAN setting with the UPNP function option off, then four ports need to be forwarded. The defaulted setting are as below: 8000,40001,40002,40003.

If you have two or more DVR in the same network you must change the "**MAC Addr**" and **ports** to avoid conflict.

EX:

DVR1	HTTP port 8000	Media port 40001 40002 40003	Mobile port 6000
DVR2	HTTP port 8001	Media port 41001 41002 41003	Mobile port 6001

Picture 4-23

2） Advanced Setup

Press "DISPLAY" to switch to "Advanced Setup".

In this interface, there are following options: code stream, select channel, resolution, quality, frame rate, Email setup, DDNS setup, DNS setup. In the former chapters have introduced how to select channel and set resolution, image quality, frame rate, therefore, the following sections only introduce the setup of code stream, Email, DDNS , DNS, Mobile port and UPNP.

(1) Minor stream

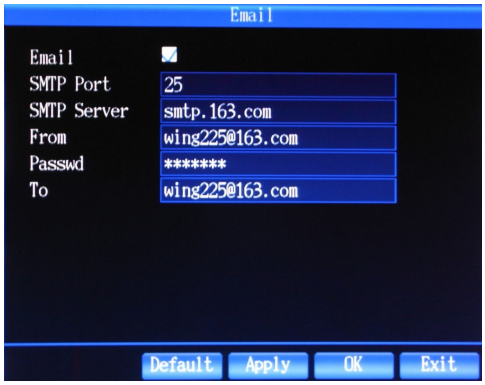
Can set network transmission resolution, when the network is not connected well, can low the resolution and frame rate.

Picture 4-24

(2) Email Setup is shown as the picture 4-25:

a) Press the arrow key to select [email] and enter the interface with PTZ, and then tick "√" with the combination of arrow key & PTZ, open the [Email] menu.

b) Input SMTP port number, SMTP server, Sender address and password, recipient's address respectively, at last, press Enter and PTZ to save above settings.



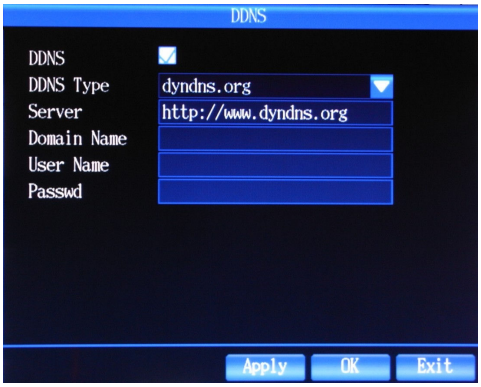
Picture 4-25

(3) DDNS Setup (shown as picture 4-26)

Setting method:

a) Press the arrow key to select [DDNS] and enter the interface with PTZ, and then tick "√" with the combination of arrow key & PTZ, open the [DDNS] menu.

b) Set DDNS type, server address, domain name, user name, password and password confirmation respectively, at last, press Enter and PTZ to save above settings.



Picture 4-26

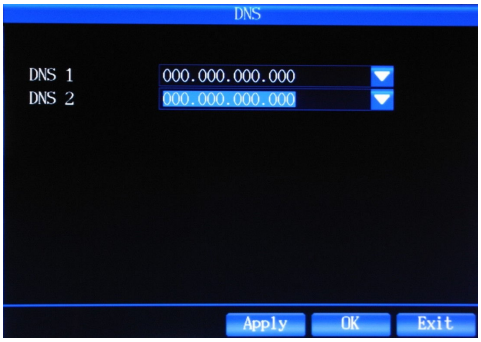
(4) DNS setup as shown in picture 4-27

Setting Method

a) Press the Arrow keys to select the DNS Setup button, click PTZ button to enter DNS screen, then press the Arrow keys to select DNS1 or DNS2.

Press PTZ button to enter edit menu, then set the DNS.

b) Click "OK" button after the setup of DNS, then press PTZ button to save the above settings.



Picture 4-27

(5) Mobile

Enter the interface; you can setup the mobile port.

(6) UPNP

When the UPNP function is on (UPNP function on the router is also on of the router setting), then the DVR will reflect the port and IP into the router automatically.

4.7.5 User Management

Enter "Main Menu"→ "User Management", the menu screen as shown in picture 4-28

User Manage is referred as the adding, modifying and deleting of users in addition with the setup of users' grades.

Setting Method:

(1) Press Arrow keys to click Add button, then press PTZ button, set the name, password and grades of the added user.

(2) Click OK button after adding the new users, press PTZ button to save the set parameters.

(3)If one of the users is to be edited or deleted, press the Arrow Keys to select this user, then press PTZ key to set the user as the selected status. Move the cursor to the User-delete button or edit button, press PTZ button to delete or edit users.

Notice	In the user management interface, you can only add 15 users at most.

Picture 4-28

4.7.6 System Setup

Click "Main Menu"→ "System Setup" to enter System Setup menu interface as shown in Picture 4-29

1） Basic Setup

Setting Method:

（1） System Date Format: YYYY/MM/DD,DD/MM/YYYY,MM/DD/YYYY

Setting Method: press the Arrow Key to select the System Date Format Column, press PTZ button to pop up the drop-down menu, then press the Arrow Key to select the appropriate format, press PTZ button to apply the selected format.

（2） Time Zone

Setting Method: Press the Arrow Key to select the Time Zone Column, press PTZ Button to pop up the drop-down menu, then press the Arrow Key to select the appropriate Time Zone, press PTZ button to apply the selected time zone. (At present, this function is not available)

（3） System Date Setup

Setting Method : Press the Arrow Key to select the System Date Setup Column, press PTZ Button to pop up the drop-down menu, then press the Arrow Key plus PTZ button to set the date, press Enter button on the edit menu to apply the selected date.

（4） System Time Setup

Setting Method : Press the Arrow Key to select the System Time Setup Column, press PTZ Button to pop up the drop-down menu, then press the Arrow Key plus PTZ button to set the time, press Enter button on the edit menu to apply the selected time.

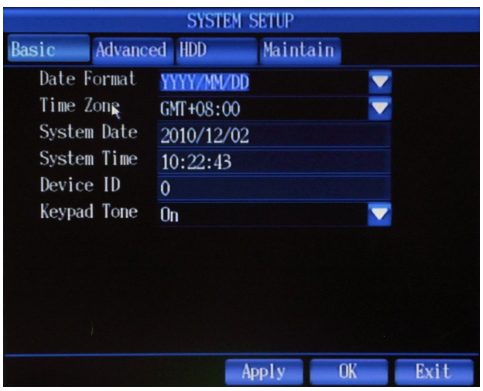
（5） Device ID:

When using special keyboard or IR remote control to dominate several DVRs, the machine ID is needed. (At present, this function is not available in remote control)

Setting Method :

Press the Arrow Key to select Machine ID Column, press PTZ button to pop up the drop-down menu, then press the Arrow Key plus PTZ key to set the ID, press the "Enter" key to apply the selected ID. The range of Device ID is 0-255.

After the setting of the parameters, press the Arrow Key to click OK button, then press PTZ button to save the above settings.



Picture 4-29

2) Advanced Setup

Press DISPLAY key to switch into the interface of Advanced Setup.

Advanced Setup Interface indicates three functions: System Language, Format Selection, Auto lock

(1) System Language: set the system display language

Setting Method : press the Arrow Keys to select system language column, press PTZ key to pop up the drop-down menu, then press the Arrow Keys to select the system display language, press PTZ button to apply the selected language. The system supports the following languages: Simplified Chinese, Traditional Chinese, English, Korean and so on.

(2) Format Selection: NTSC and PAL

Setting Method : press the Arrow Keys to select format column, press PTZ key to pop up the drop-down menu, then press the Arrow Keys to select the format, press PTZ key to apply the selected format.

(3) Auto lock: the system would be automatically locked when having no operation of system function during a particular period. (At present, this function is not available)

Setting Method:

Press the Arrow Keys to select auto lock column, press PTZ key to pop up the drop-down menu, and then press the Arrow Keys to select the intervals. The intervals are optional（0/1/3/5/10/30/）minutes, the default setting is 0 minute.

Picture 4-30

3) Hard disk management

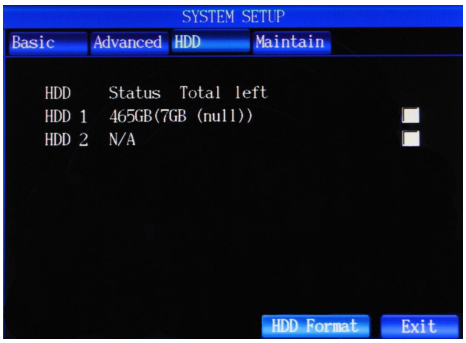
Press DISPLAY key to switch to the Hard Disk management interface.

Hard disk management interface mainly displays hard disk information (Hard disk Status, total capacity and remaining capacity) and the operation of hard disk formatting.

Hard Disk Formatting

Setting Method:

Press the Arrow Keys to select hard disk format and PTZ key to tick √, press the Arrow Keys to click the hard disk format button, then press PTZ key to execute the formatting.



Picture 4-31

4) System Maintain

Press DISPLAY key switching to the system maintain interface as shown in Picture 4-32

The system maintain interface mainly deal with the updating of DVR. Upgrade indicates: System BIOS, System Image, and System APP.

Note	1）The power should not be interrupted when updating; you could also not restart the machine during this period; or the machine can not start. 2) The lower left of the screen would appear "Upgrading Successfully" after the successful upgrade. Then you can restart the machine. 3) Unplugging and plugging the USB disk is forbidden during the updating process, or the device could not continue updating or start.

Picture 4-32

4.7.7 Display Setup

Click "Main Menu"→ "Display Setup" to enter Display Setup menu interface as shown in Picture 4-33

The display setup interface mainly indicates: Main display switching interval (Main Interval), SPOT switching interval(Spot Interval),video loss ignore(Camera Loss),display resolution.

(1) Main display switching interval (Main Interval) is referred as the setup of the interval between the switching of the main displaying screen.

Setting Method: press the Arrow Keys to select main display switching interval (Main Interval) column, press PTZ key to pop up the drop-down menu, finally, press the PTZ key to apply the selected intervals. The optional numerical value indicates (1/2/3/5 second etc.), the default value is 2 seconds.

(2) SPOT Switching Interval (Spot Interval) is referred as setup of the interval between the switching of the SPOT displaying screen.

Setting Method :

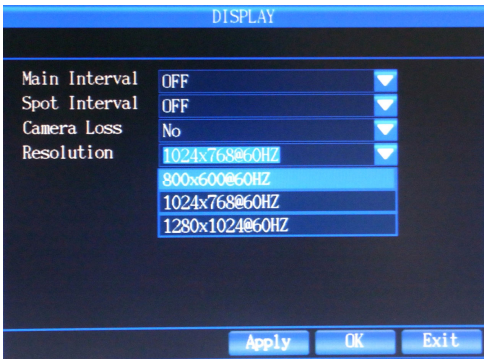
Press the Arrow Keys to select SPOT switching interval(Spot Interval) column, press PTZ key to pop up the drop -down menu, press the Arrow Keys to select the intervals, then press PTZ key to apply the selected intervals. The optional numerical value indicates (1/2/3/5 second etc.), the default value is 2 seconds.

(3) Video Loss Ignoring（Camera Loss）is referred as the skipping of the channel without video signal input.

Setting Method : Press the Arrow keys to select video loss ignoring （Camera Loss） column, then press PTZ key to pop up the drop-down menu, press the arrow key to select on/off, press PTZ key to apply the selected settings. If the setting is on, then the channel without video input will be skipped. While the setting is off, all the channels will be displayed whether any video input or not.

(4) Display Resolution: the resolution setup of VGA or HDMI output port

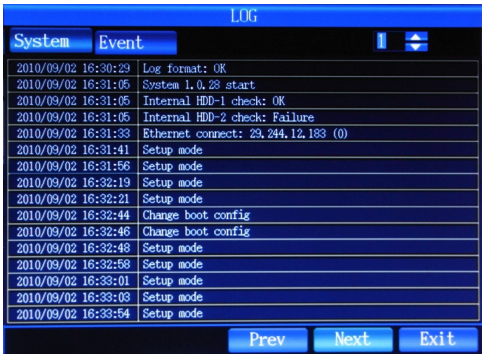
Setting Method : Press the Arrow Keys to select display resolution(Resolution) column, press PTZ key to pop up the drop -down menu, press the Arrow Keys to select the video output resolution, then press PTZ key to apply the selected settings.



Picture 4-33

4.7.8 Log Search

Click "Main Menu"→ "Log " to enter the interface as shown in Picture 4-34



Picture 4-34

The login and startup of the device would leave a log message. Users could check the log information.

1. System Log

The system log indicates: the record of the normal start, local system login, remote login, system updating.

2. Event Log

Event log indicates: the records of triggered event deletion, video loss, linkage alarm, dynamic detection, wrong password, HDD error.

Setting Method:

(1) In the system log interface, press the arrow keys to select the category query column, press PTZ key to pop up the drop down menu, and then press the arrow keys to select the queried log type, press the PTZ key to apply the settings.

(2) Setup of the queried time: press the arrow keys to select "search" button, press PTZ button to enter log list interface as shown in the above picture.

4.7.9 PTZ Control

Click the right mouse button→ select the "PTZ control" in the right button menu to enter PTZ control interface.

After entering the PTZ control interface, it is very convenient to control the PTZ. The PTZ control interface is as shown in picture 4-35. The speed of PTZ could be set. The arrow buttons is used to control the direction of the high-speed ball movement, press "+","-" button to control zoom, focus, iris.

Picture 4-35

Path cruise: you need double click to enter the PTZ channel

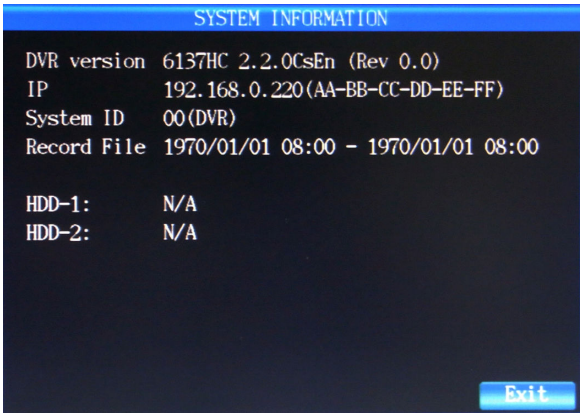
Step 1, adjust the direction key to the starting point

Step 2, select Rec Path and adjust the direction key to the end then select End Rec.

Step 3, select Track. The PTZ camera will move between the starting point and End point.

4.7.10 System Information

Press ESC key→ select the "system information" in the right mouse button menu to enter the system information interface as shown in picture 4-36



Picture 4-36

System information interface mainly indicates the DVR Version, web address, system ID, the information of record files and the information of the built-in HDD.

Chapter 5 IE and Client Software Login

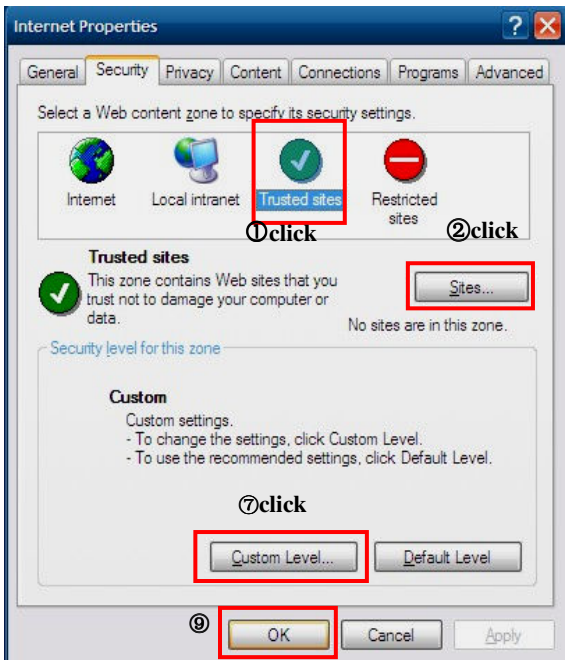
5.1 IE activeX plug-in download and installation

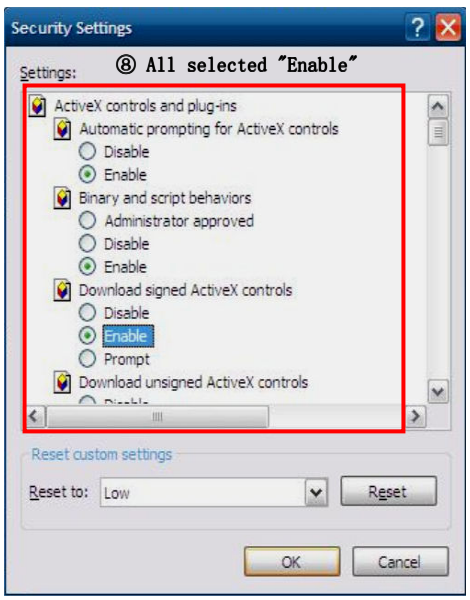
Open your IE browser, enter the IP address and web port of DVR. Ex:http://192.168.xxx.xxx:8000/ , then press ENTER key, if your computer is connected to internet, you will be prompted to download and install "ActiveX Control"

Notice

Unable to download the plug-in problem

1. Check the network cable and network setup.
2. Check if the safety levels or firewall setting are set too advanced.
3. Select IE Tools→ Internet Option to enter the security tab, click the custom levels and set the "download unsigned Active X plug-in" Options as "prompt" click "OK" button to exit.

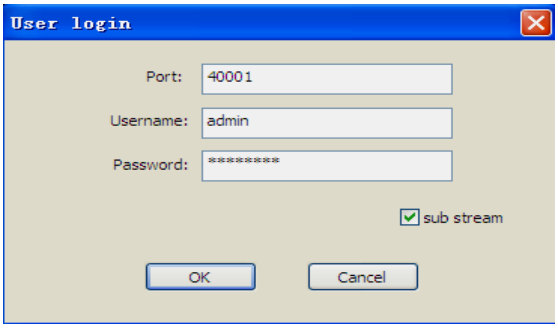




After setup, enter the IP address in the IE address bar, and complete the automatic Installation of the plug-in unit as prompted.

5.2 IE Login

After the plug-ins installation, (the login interface as shown in picture 5-1)enter the port, user name and password, then click "LOGIN" to view DVR remotely. The default password：00000000



Picture 5-1

Picture5-2

Indicator	Function	Indicator	Function
LIVE	live		Intercom
PLAYBACK	Play back menu		Record
SETUP	Setup menu	PTZ	Auto
	1x1		Up,Down,Left,Right
	2x2		ZOOM
	3x3		FOCUS
	4x4		IRIS
	Full screen		PRESET
	Snap		CALL PRESET

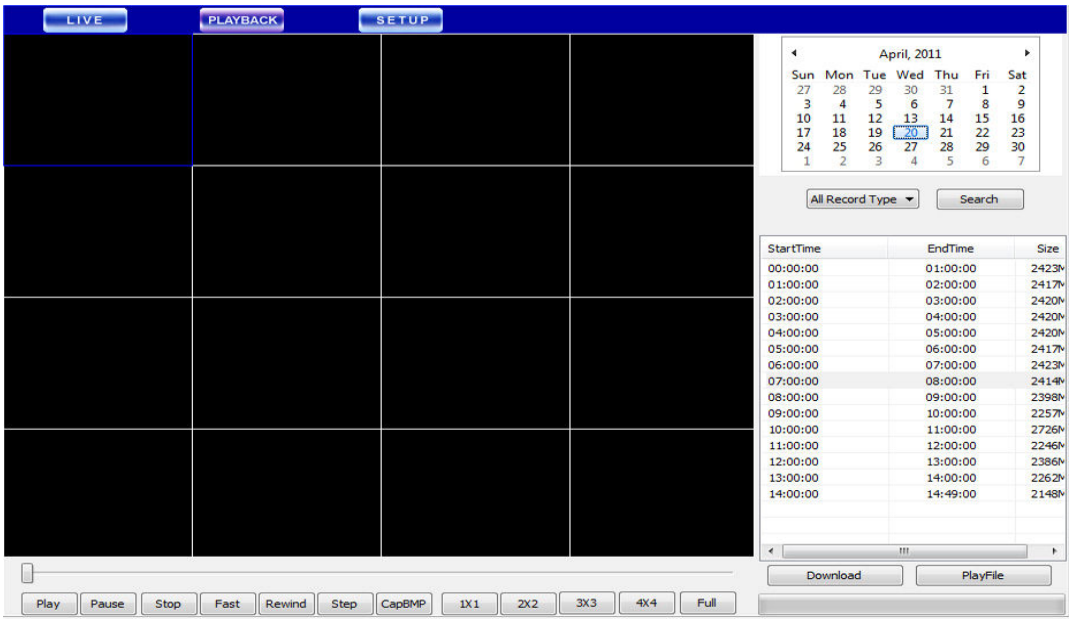
5.3 IE interface

After logging in the client end successfully, the window as shown in picture 5-2

5.3.1 Menu Bar

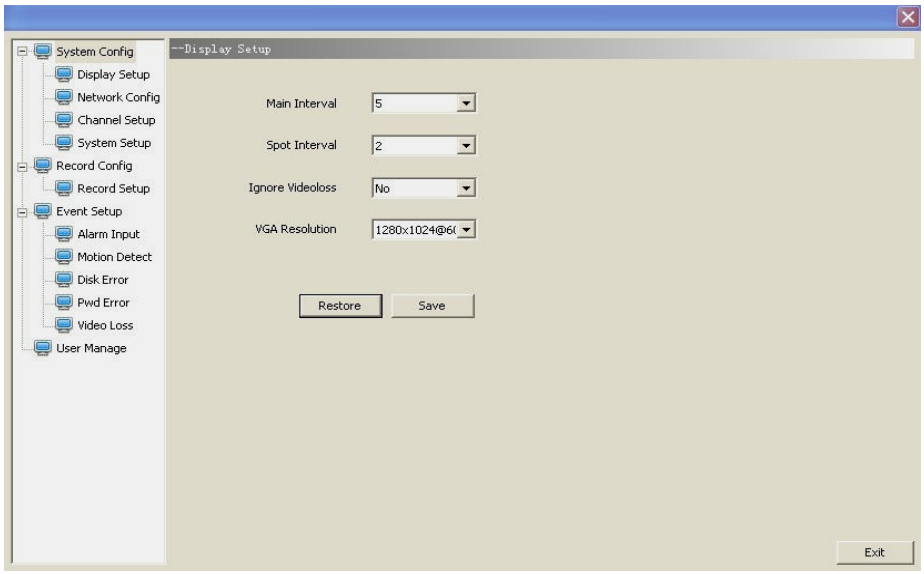
Preview: After PC client end log in the system, enter the default live preview interface as shown in picture 5-2

Retrieval: Click "Retrieval" to review the DVR video files remotely and select to play some files. Click "Retrieval" after selecting the date and record type, and then select the event play in the event lists of the search results, meanwhile, use the play control bar at the bottom of the interface to control. As shown in picture 5-3, users could pause, stop, fast forward, slow play of the selected files. To download the retrieval files, tick and select the files ,then click "download" button, the files saving path is set in the local setting interface as shown in picture 5-14.



Picture 5-3

Setup: Click "setup",select the remote configuration, as shown in picture 5-4



Picture 5-4

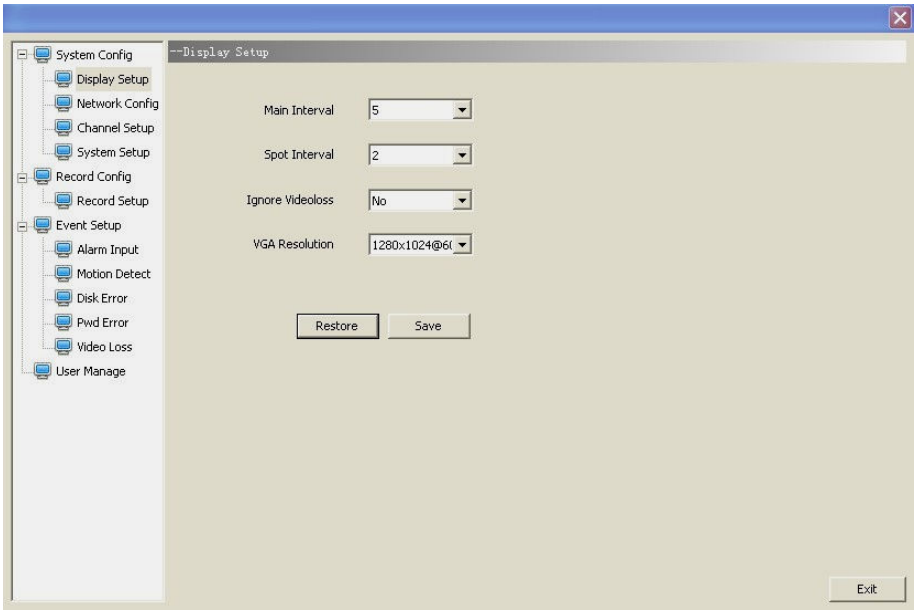
Notice	Only when DVR is in the preview main interface, its parameters can be modified remotely. The settings come into effect after the parameter savings are submitted to DVR. The parameter modification in IE is consistent with the same modification in DVR.

The remote configuration interface mainly indicates system configuration, recording configuration, events configuration, User Manage.

a. System configuration includes display setting, web setting, channel setting, log q uery, system setting.

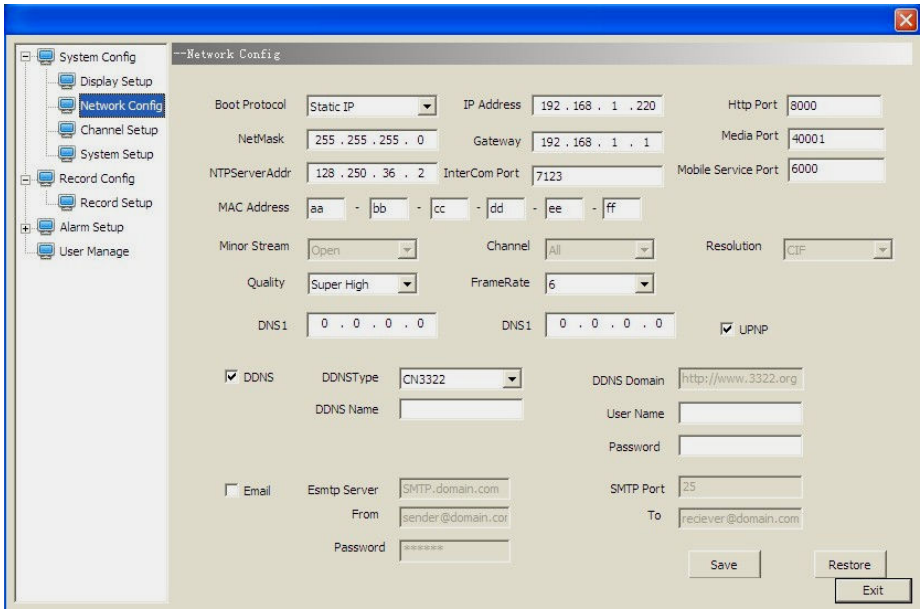
Click "System Configuration"→ "Display Setting" to enter display setting interface as shown in the below picture. Users can set the main display switching time, SPOT switching time, HDD loss ignoring, display resolution and OSD output device in the interface.

Setting Method is the same with that of DVR, please refer to 4.7.7.



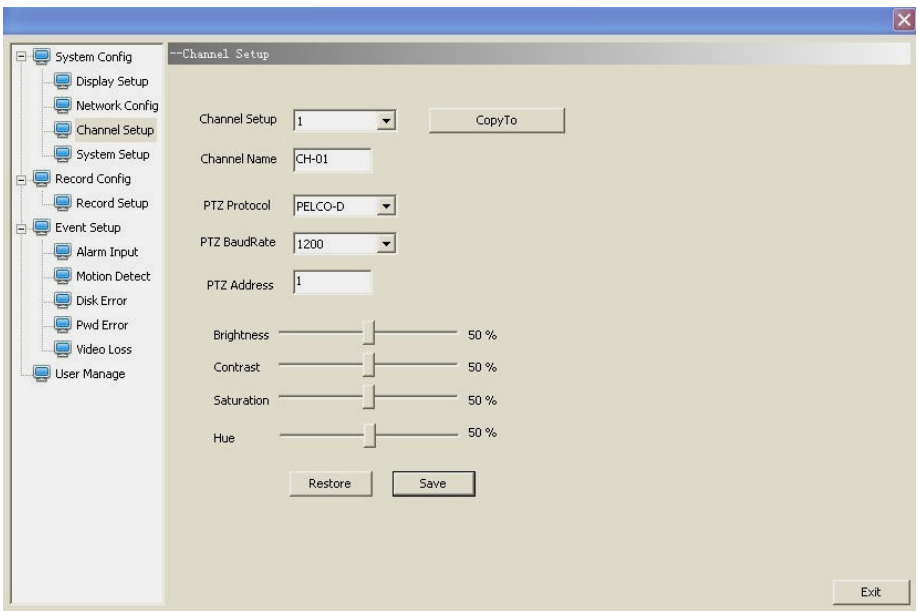
Picture 5-5

Click "System Configuration"→ "Web Setting" to enter web setting interface as shown in below picture. Users can set the network mode in the interface; the relevant parameters are consistent with those of DVR end. Please refer to 4.7.4.



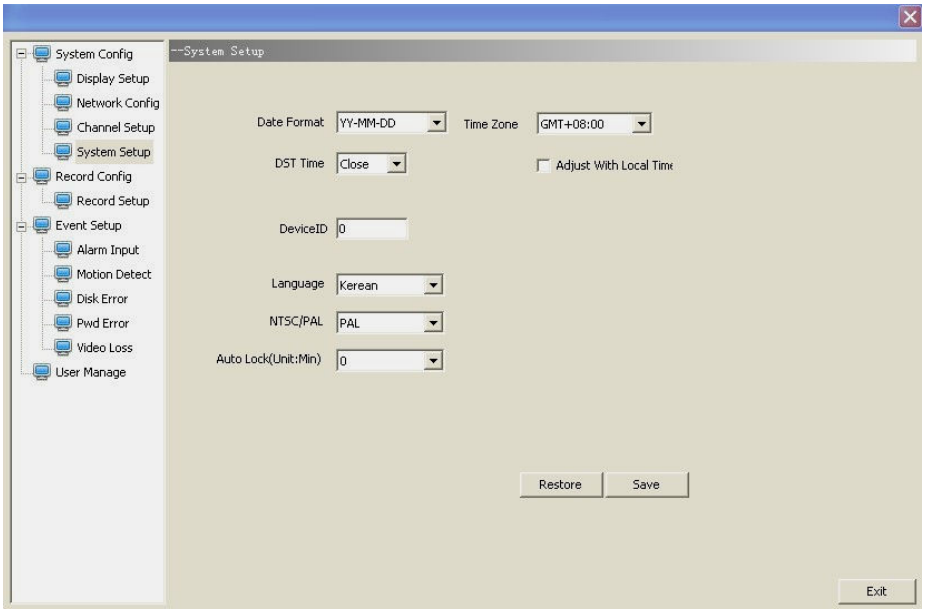
Picture 5-6

Click "System Configuration"→ "Channel Setting" to enter channel setting interface as shown in below picture. Users can set the channel name, PTZ protocol, PTZ Baud rate, PTZ address and the color in the interface. The Setting Method is consistent with that of DVR end.



Picture 5-7

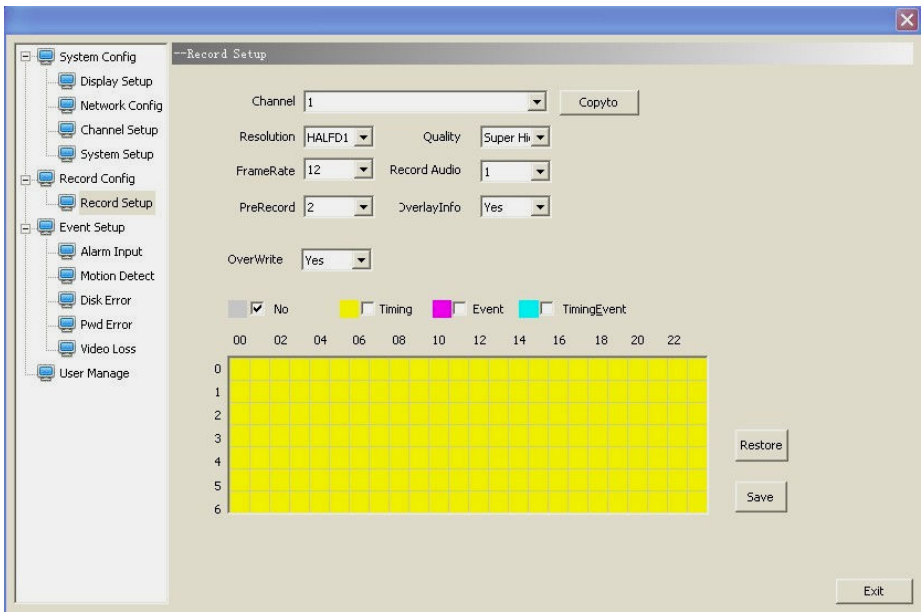
Click "System Configuration"→ "System Setting" to enter log query interface as shown in below picture. Users can set system date format, time zone, system time setting, daylight saving time, device ID, system language, format option, auto lock in this interface. The Setting Method is consistent with that of DVR end.



Picture 5-8

The recording configuration includes recording setting and recording schedule.

Click "Recording Configuration"→ "Recording Setting" to enter recording setting interface as shown in below picture. Users can set recording resolutions, definition, frame rate, sound recording, pre-recorded frame rate, superposition information and cycle covering in this interface. The Setting Method is consistent with that of DVR end. Please refer to 4.7.1 Basic Setting.

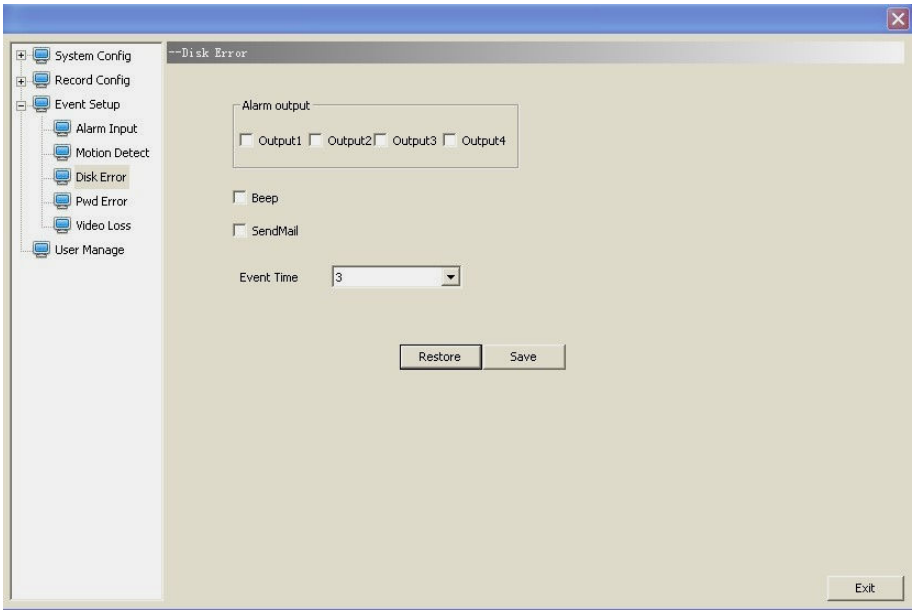


Picture 5-9

Click "Recording Configuration"→ "Recording Schedule" to enter recording schedule interface as shown in below picture. The recording schedule is mainly set to the recorder. The Setting Method is consistent with that of DVR end. Please refer to 4.7.1Recording Schedule.

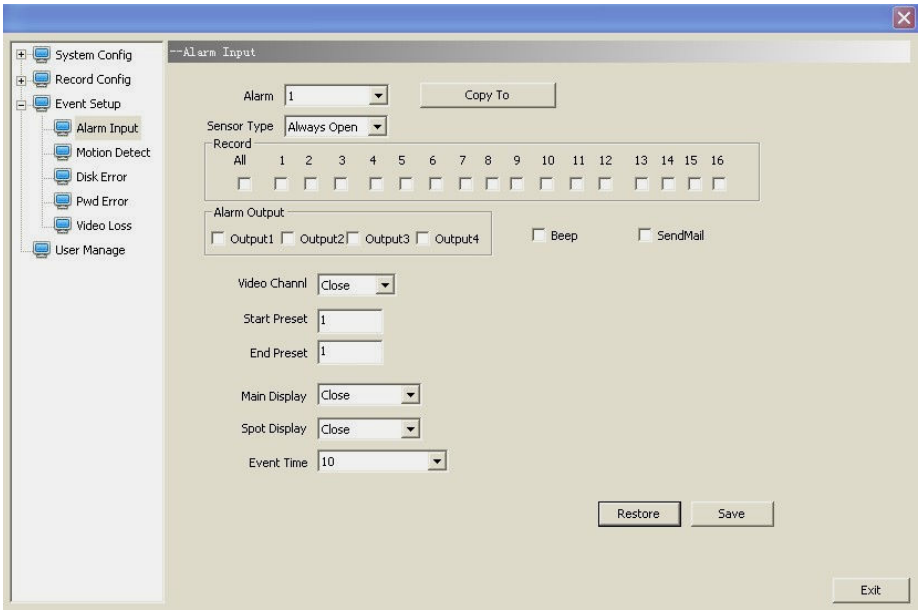
b. Event configuration interface mainly indicates HDD error, password error, video loss, alarm input, motion detection. The HDD error, password error and video loss interfaces are almost consistent

shown as the below picture.



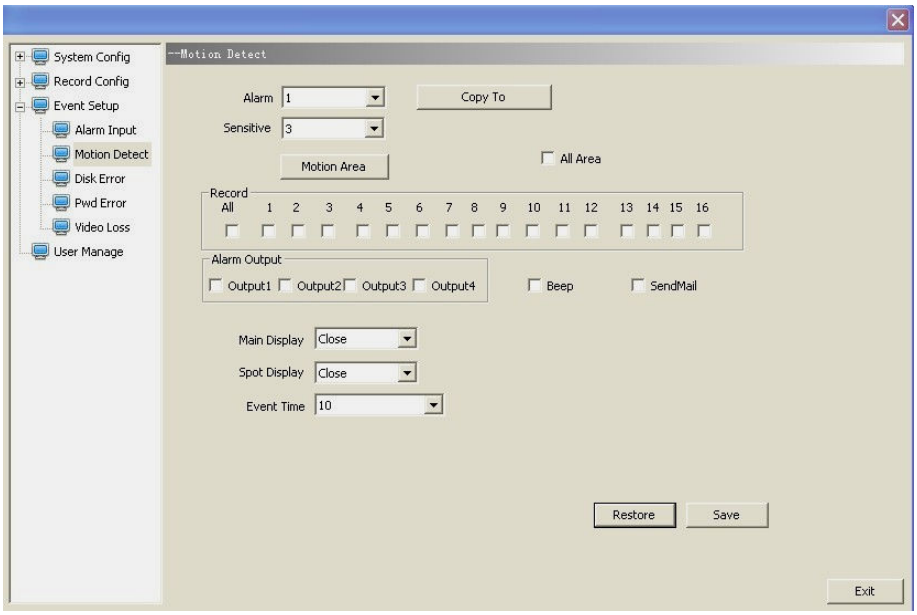
Picture 5-10

The alarm input interface is as shown in the below picture



Picture 5-11

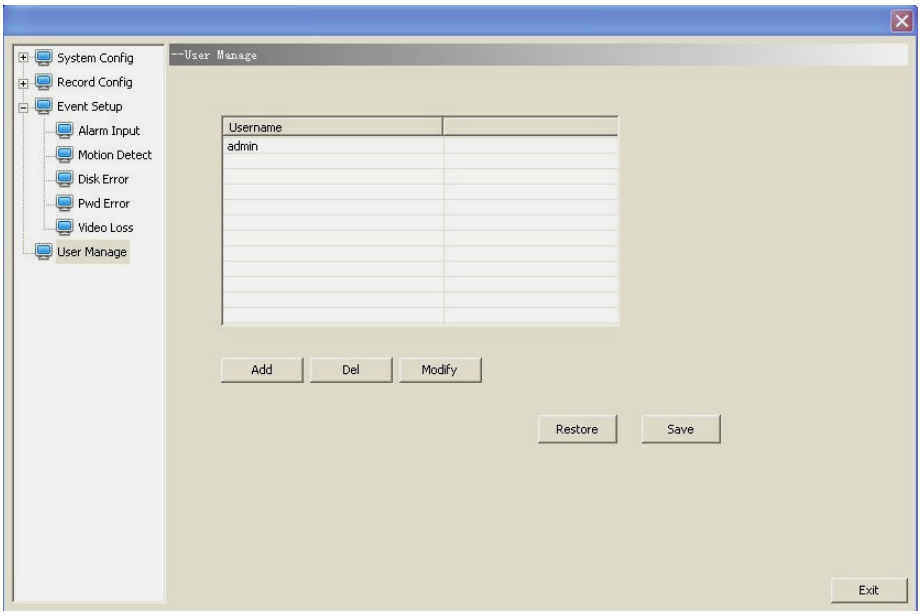
The motion detection interface is as shown in the below picture



Picture 5-12

c. User Management indicates the adding, deletion and modification of the users.

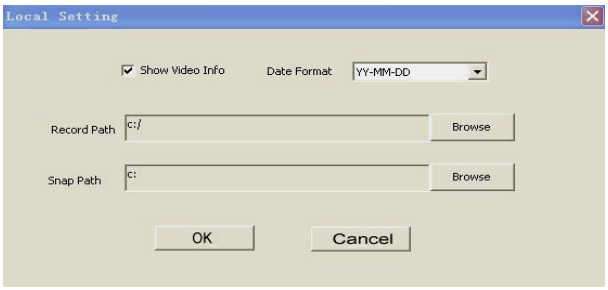
User management interface is as shown in the below picture



Picture 5-13

The above Setting Method of the interface is consistent with that of DVR. Please refer to the Setting Method of DVR.

Select the local configuration, the interface is as shown in picture 5-14



Picture 5-14

The local configuration includes spot overlay characters, record path and snap path

A.Live overlay characters indicate the displaying channel name set during the live preview.

B.The record path indicates the saving path of the downloading record videos

C.The snap path indicates the saving path of the screenshot images.

5.3.2PTZ Control

PTZ Control: the zoom, focus and iris control of PTZ.As shown in picture 5-2.

5.3.3 Video Switch

Under the state of live preview, the preview screen can be split by pressing the switch button of video window. It supports single screen, four screens, nine screens, 16 screens and full screen operation. As shown in picture 5-2.

5.3.4 Playback

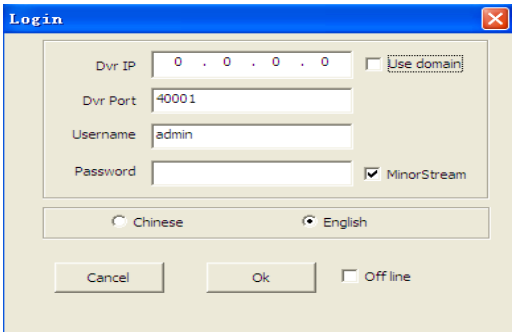
Under the state of live preview, click the "Playback" button to enter record query interface. Click "seach" button after selecting the date and type of the files. Then select the particular event in the searched event lists to play. Meanwhile, users can operate the play control bar at the bottom of the screen to control (as shown in picture5-3) the pause, stop, fast forward, slow forward and so other operations. During the course of playback, the screen could be split. The device support single screen, four screens, nine screens, sixteen screens and full screen playback at present.

5.3.5 Snapshot

Under the state of live preview, click the "snapshot" botton, Can operate the snapshot of the current previewed picture. As shown in picture 5-2 .

5.4 Client software login

Pls open the file"player.exe"(KTDvrClient.exe DVR Client KTSY) in the CD Files,the interface is as shown in the following image:



User Name: DVR User Name(default is admin)
Password: DVR Password(default is 00000000)
Minor Stream: After ticking √ in this option, the stream of the system transfer is minor Stream. Otherwise, it is main stream.
Language: Language Options
Offline: Offline Play Function can play backup record file

The operation interface of the Client Software after logging is just the same of the interface on IE. Please refer to the setting and operation method of IE

Chapter 6 Troubleshooting

1. What can I do if the system cannot detect the HDD?

A: Check if the power supply is properly connected, data cable and power cables accurately connected.

2. We are not getting any video signal on the DVR, what is wrong?

A: Check camera video cable and connections; or check monitor video cable and connections; or confirm that the camera has the power and / or check camera lens setting.

3. What is the affect to equipment by DVR's heat?

A: The DVR has a fan to help it dissipate heat while it is running. Please place the DVR in a place where there is good air circulation and away from heat sources to increase stability and life of the DVR.

4. Why the Remote Controller can't work normally?

A: If the controller is pointing to the IR signal on equipment front panel, but the operation is still invalid, please check the batteries in remote controller, if above problems are excluded, please check the health of the remote controller

5. When my PC HDD is installed into DVR, does it work?

A: It works as long as the DVR system supports the HDD. But note that the data of the HDD will be lost when DVR is operating.

6. Can we record while playing-back?

A: Yes, you can do it. The system supports that you record while playing-back.

7.Can we erase some recorded file from DVR?

A: No, considering the safety factor, you can't delete the recorded file directly from the device. When you actually erase all the recorded files, please select HDD format function

8. Why can't login DVR client?

A: Please check if the web connection configurations are all right and the RJ-45 interface connection is ok. Or when the web password switch is on, check if the account and password are right or not.

9. There is drag mark on screen when real-time monitoring in client end, even short delay?

A: It's normal if less than 5 seconds;

10. Cannot find any information record during the playback?

A: Please check the harddisk data cable connection, and whether system time is adjusted illegally. Try it several times, and test whether the harddisk is damaged if above still appears.

11. DVR cannot control the PTZ after setup?

A: Please test for the following reasons:

The DVR setup does not match PTZ camera

Check the RS-485 cable

12. Motion detection does not work?

A: Check the motion detection time and motion detection zone and make sure that they are right setup, and check the sensitivity setting.

13. Why does the Buzzer keep sounding?

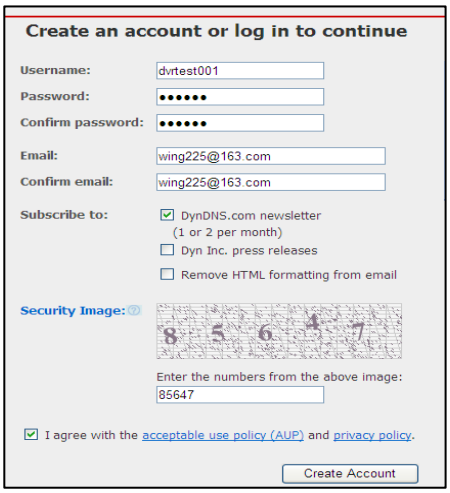
A: Please check if motion detection is on and the system has detected motion, make sure the HDD is being detected and has sufficient space available; check if video has lost etc.

Appendix 1 Domain name application

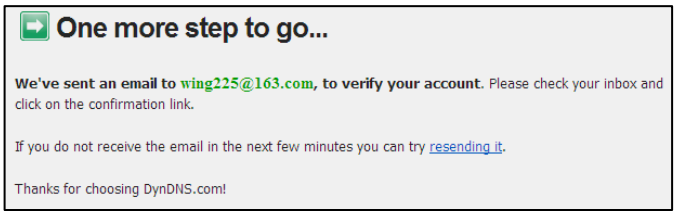
1) Create account

First open www.dyndns.com, and click the Create Account option:

Fill in the account information.

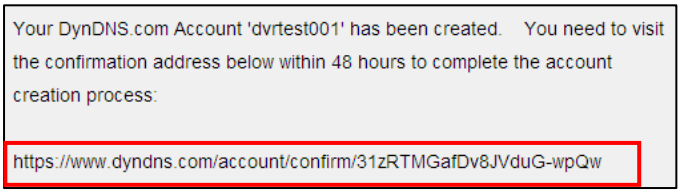


After confirmation, the system will prompt that the verification message has been sent to the designated mailbox, as shown below:


One more step to go...
We've sent an email to wing225@163.com, to verify your account. Please check your inbox and click on the confirmation link.
If you do not receive the email in the next few minutes you can try resending it.
Thanks for choosing DynDNS.com!

2) Activate account

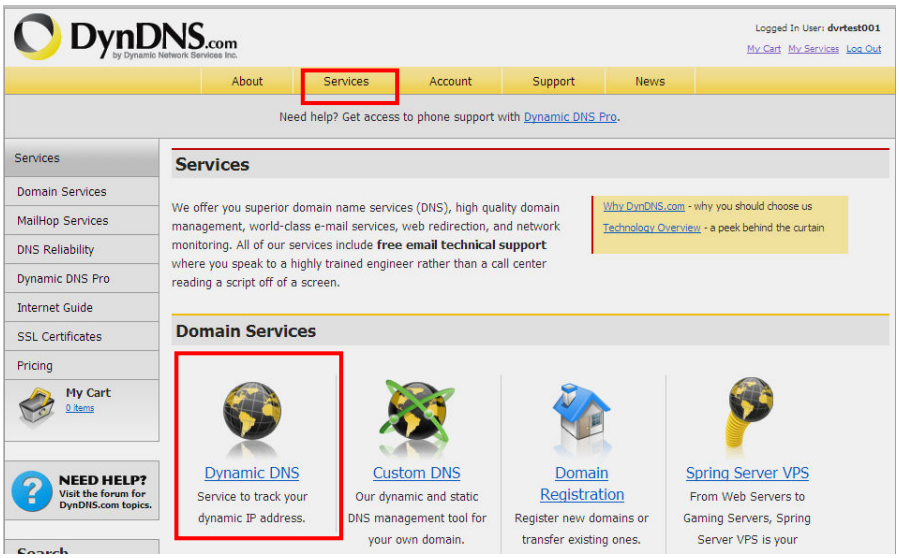
Log in your mailbox and open the confirmation link sent from support@dyndns.com, as shown below:


Your DynDNS.com Account 'dvrtest001' has been created. You need to visit the confirmation address below within 48 hours to complete the account creation process:
https://www.dyndns.com/account/confirm/31zRTMGafDv8JVduG-wpQw

Click the link below and enter the website to activate the account.

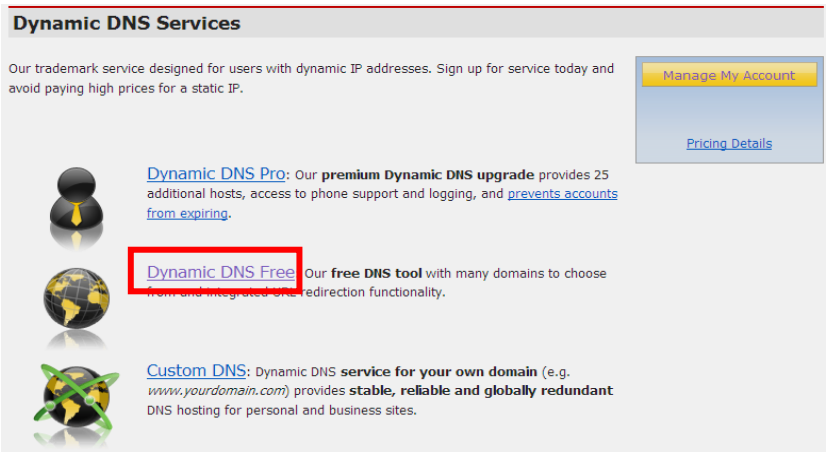
3) Login

After successful activation, open the home page http://www.dyndns.com/ to log in. After successful login, click “Services” →“Dynamic DNS”, as shown below:


DynDNS.com
by Dynamic Network Services Inc.
Logged In User: dvrtest001
My Cart My Services Log Out
About
Services
Account
Support
News
Need help? Get access to phone support with Dynamic DNS Pro.
Services
Domain Services
MailHop Services
DNS Reliability
Dynamic DNS Pro
Internet Guide
SSL Certificates
Pricing
My Cart
0 items
NEED HELP?
Visit the forum for DynDNS.com topics.
Services
We offer you superior domain name services (DNS), high quality domain management, world-class e-mail services, web redirection, and network monitoring. All of our services include free email technical support where you speak to a highly trained engineer rather than a call center reading a script off of a screen.
Why DynDNS.com - why you should choose us
Technology Overview - a peek behind the curtain
Domain Services
Dynamic DNS
Service to track your dynamic IP address.
Custom DNS
Our dynamic and static DNS management tool for your own domain.
Domain Registration
Register new domains or transfer existing ones.
Spring Server VPS
From Web Servers to Gaming Servers, Spring Server VPS is your

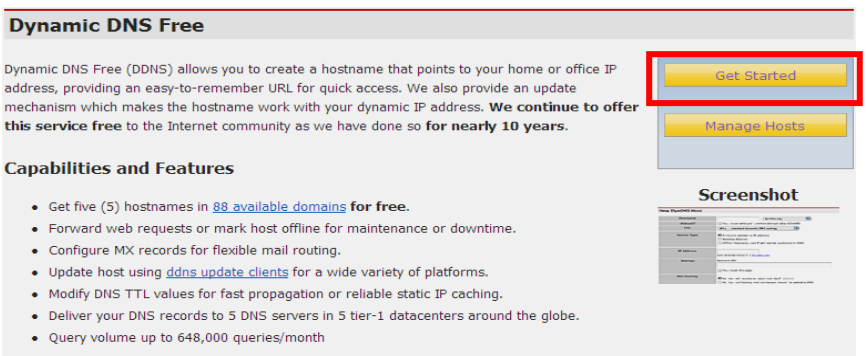
4) Application for free domain name

After entering the “Dynamic DNS Services” screen, click “Dynamic DNS Free” to apply for a free dynamic domain name, as shown below:

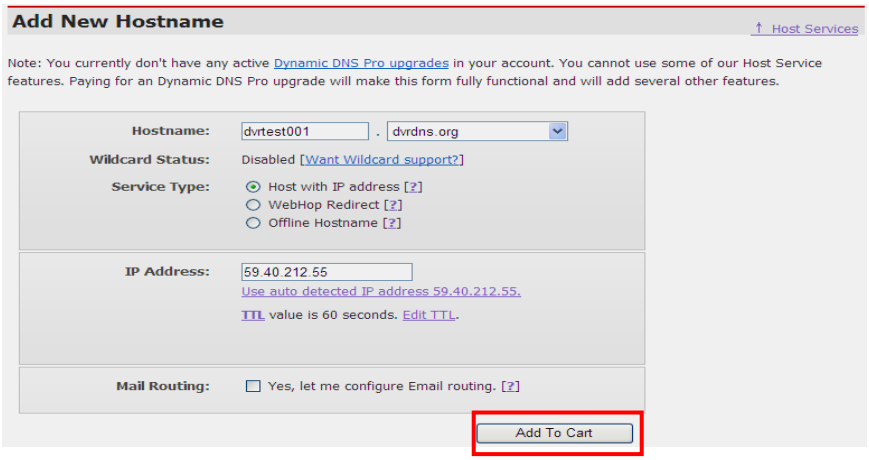

Dynamic DNS Services
Our trademark service designed for users with dynamic IP addresses. Sign up for service today and avoid paying high prices for a static IP.
Manage My Account
Pricing Details
Dynamic DNS Pro: Our premium Dynamic DNS upgrade provides 25 additional hosts, access to phone support and logging, and prevents accounts from expiring.
Dynamic DNS Free: Our free DNS tool with many domains to choose
redirection functionality.
Custom DNS: Dynamic DNS service for your own domain (e.g. www.yourdomain.com) provides stable, reliable and globally redundant DNS hosting for personal and business sites.

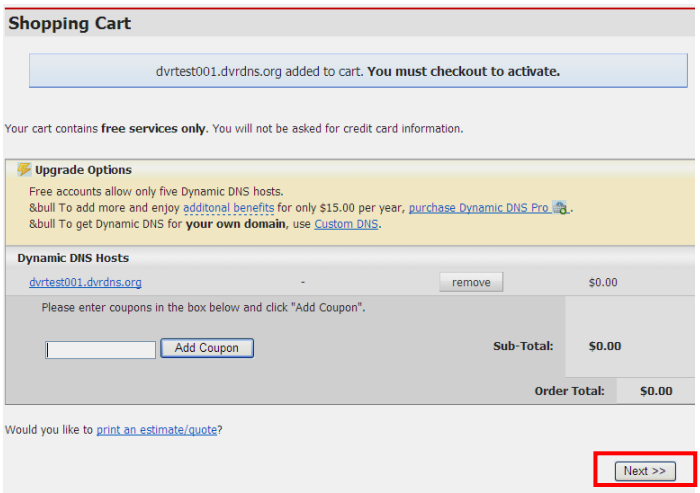
Enter the “Dynamic DNS Free” screen, as shown below. Click

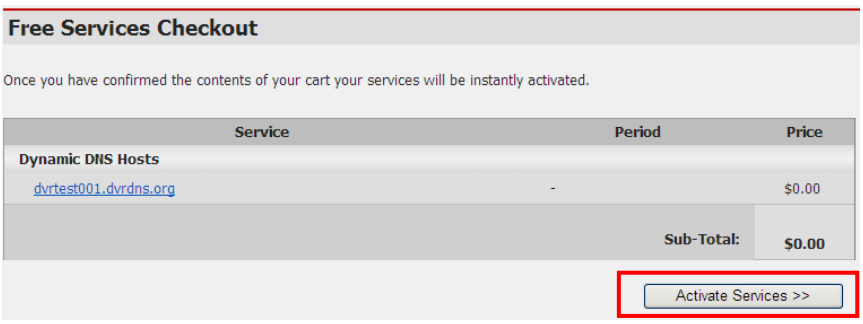
“ Get Started ”.

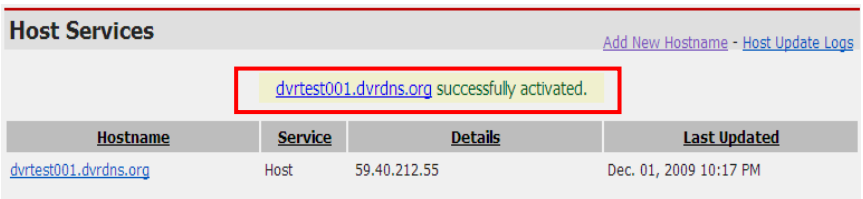

Dynamic DNS Free
Dynamic DNS Free (DDNS) allows you to create a hostname that points to your home or office IP address, providing an easy-to-remember URL for quick access. We also provide an update mechanism which makes the hostname work with your dynamic IP address. We continue to offer this service free to the Internet community as we have done so for nearly 10 years.
Get Started
Manage Hosts
Capabilities and Features
Screenshot
Get five (5) hostnames in 88 available domains for free.
Forward web requests or mark host offline for maintenance or downtime.
Configure MX records for flexible mail routing.
Update host using ddns update clients for a wide variety of platforms.
Modify DNS TTL values for fast propagation or reliable static IP caching.
Deliver your DNS records to 5 DNS servers in 5 tier-1 datacenters around the globe.
Query volume up to 648,000 queries/month

Enter the hostname, select the service type and then enter the dynamic IP address (usually being the dynamic IP address of the network of the DVR host) to be tied in the Add New Hostname screen, as shown below. Complete the application for the dynamic domain name as prompted.


Add New Hostname
↑ Host Services
Note: You currently don't have any active Dynamic DNS Pro upgrades in your account. You cannot use some of our Host Service features. Paying for an Dynamic DNS Pro upgrade will make this form fully functional and will add several other features.
Hostname: dvrtest001 . dvrdns.org
Wildcard Status: Disabled [Want Wildcard support?]
Service Type: Host with IP address [?]
WebHop Redirect [?]
Offline Hostname [?]
IP Address: 59.40.212.55
Use auto detected IP address 59.40.212.55.
TTL value is 60 seconds. Edit TTL.
Mail Routing: Yes, let me configure Email routing. [?]
Add To Cart

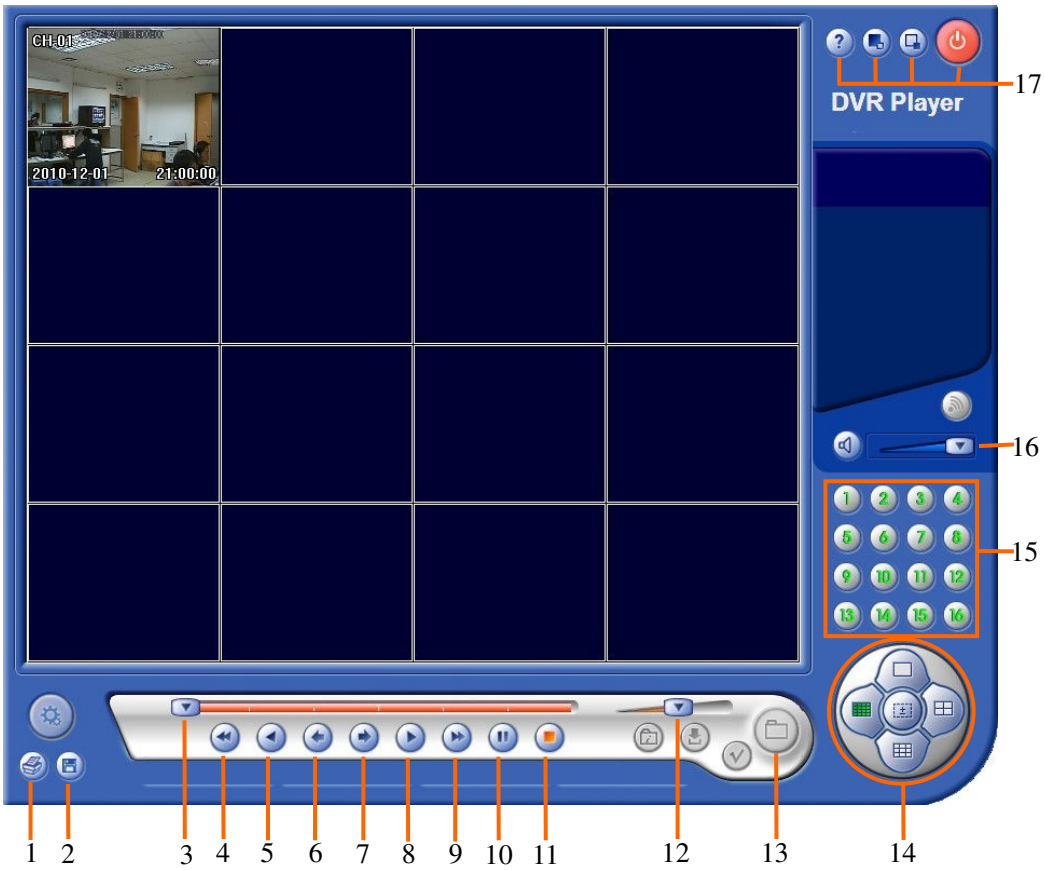

Shopping Cart
dvrtest001.dvrdns.org added to cart. You must checkout to activate.
Your cart contains free services only. You will not be asked for credit card information.
Upgrade Options
Free accounts allow only five Dynamic DNS hosts.
&bull To add more and enjoy additonal benefits for only $15.00 per year, purchase Dynamic DNS Pro.
&bull To get Dynamic DNS for your own domain, use Custom DNS.
Dynamic DNS Hosts
dvrtest001.dvrdns.org - remove $0.00
Please enter coupons in the box below and click "Add Coupon".
Add Coupon
Sub-Total: $0.00
Order Total: $0.00
Would you like to print an estimate/quote?
Next >>





Appendix 2 Player

Pls open the file "player.exe"( ) in the CD Files,the interface is as shown in the following image:



NO.	Function	NO.	Function
1	Image print	11	Stop
2	Image save	12	Play speed
3	Play bar	13	Open file
4	Fast backward	14	Display mode
5	Backward play	15	1~16 Channel
6	Step backward	16	Audio
7	Step forward	17	:about
8	Play		:full screen
9	Fast forward		:minimize
10	Pause		:Exit

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